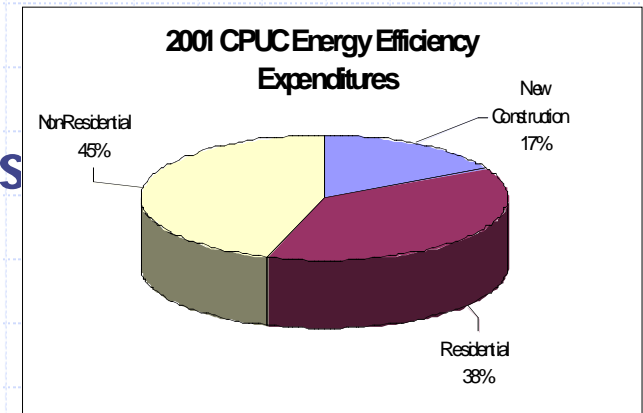


# 2001-2003 Energy Efficiency and Conservation Programs



Public Utilities  
Commission

- ◆ 7 to 10% less energy usage in 2001 compared to 2000
- ◆ 1,558 GWh of energy saved = \$156M/yr in consumer savings
- ◆ 452 MW of peak demand trimmed
  - 10% of entire peak demand
  - Made \$180M in new power generation for peak demand unnecessary



# 2001-2003 Energy Efficiency and Conservation Programs



Public Utilities  
Commission

- ◆ Overview of 2001 yearly energy savings and costs per area:

<u>Program Area</u>	<u>GWh Energy Savings</u>	<u>MW Peak Savings</u>	<u>Cost (\$M)</u>
<b>Retrofits/Renovation</b>	727	159	172.5
<i>Residential</i>	128	44	74.4
<i>Commercial/Agricultural</i>	599	115	98.1
<b>Lighting and Appliances</b>	633	190	160.1
<i>Residential</i>	554	177	115.9
<i>Commercial/Agricultural</i>	79	13	44.2
<b>New Construction</b>	93.4	35	42.8
<i>Residential</i>	20.4	15	19.9
<i>Commercial/Agricultural</i>	73	20	22.9
<b>Group Programs</b>	58.5	47	33.1
<b>HVAC</b>	46.3	21	14.9
<i>Residential</i>	6.1	9	5.9
<i>Commercial/Agricultural</i>	40.2	12	9
<b>Total</b>	<b>1558.2</b>	<b>452</b>	<b>423.4</b>

# 2001-2003 Energy Efficiency and Conservation Programs



Public Utilities  
Commission

## ◆ 2001 Program Specifics

### ■ Retrofits and Renovation

- Promotes energy efficiency building and equipment renovation
- Links consumers with trained providers of efficient technologies
- Examples: Commercial and residential work, retrofitted motors and pumps, Presidio overhaul

### • Lighting and Appliances

- Promotes energy efficient products in both usage and manufacture
- Educates consumers and retailers along with providing rebates
- Examples: Compact fluorescent bulbs, LED traffic lights, ENERGY-STAR® appliance promotion

# 2001-2003 Energy Efficiency and Conservation Programs



Public Utilities  
Commission

- **New Construction**
  - Similar to retrofit goals, but promotion in new construction
  - Examples: Residential/Commercial construction, Oakland Energy Efficiency Design Assistance
- **Comprehensive Group Development**
  - Broad programs to promote efficiency across a group or area
  - Examples: UC/CSU system, multi-family homes and apartment complexes
- **Heating, Ventilation, and Air Conditioning (HVAC)**
  - Efficient heating and cooling, promoting of ENERGY-STAR® appliances for this use, education and training
  - Examples: House Fans (San Diego), New Business AC

# 2001-2003 Energy Efficiency and Conservation Programs



Public Utilities  
Commission

## ◆ 2002-2003 State Funding for State Efficiency Programs

<u>Program</u>	<u>Dollars Allocated (\$M)</u>
<b><i>Residential</i></b>	
Retrofit (existing buildings)	41.6
New Construction	14.1
<b><i>Nonresidential</i></b>	
Retrofit (existing buildings)	53.8
New Construction	20.4
<b><i>Cross-Cutting</i></b>	
Res/Non-Res Retro/New Constr.	20.1
Statewide Marketing Campaign	10.0
Total	160

# 2001-2003 Energy Efficiency and Conservation Programs



Public Utilities  
Commission

## ◆ 2002-2003 Statewide Program Types

### ■ Residential Retrofit

- ◆ Appliance, Lighting, HVAC rebates
- ◆ Comprehensive Retrofits
- ◆ Appliance Retirement and Recycling

### ■ New Construction (Res/Nonres)

- ◆ Comprehensive Rebates and Training

### ■ Nonresidential Retrofit

- ◆ Large and Medium Comprehensive Programs
- ◆ Small Business Rebates
- ◆ Building Operator Certification and Training

# 2001-2003 Energy Efficiency and Conservation Programs



Public Utilities  
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- ◆ **Statewide Programs (Continued)**
  - **Cross-Cutting Programs**
    - ◆ Statewide Marketing and Outreach
    - ◆ Upstream Appliance, Lighting, and HVAC Rebates
    - ◆ Statewide Marketing Campaign
- ◆ **Local Project Funding**
  - \$102M allocated for local projects
  - Funds given to combination of government, non-profit, community, small business, consulting, utility, and other groups

# California Demand Response Programs



Public Utilities  
Commission

- ◆ Current program limited to 2500 MW signed up capacity and \$250M expenditures
- ◆ Program Overviews:

<u><b>Program</b></u>	<u><b>MW Available</b></u>	<u><b>Incentive</b></u>
Interruptible	1042	15-20% reduction in regular rates
AC cycling	250 (SCE only)	Credit on bills
Ag and Pump Interruptible	41.5	Credit on bills
Base Interruptible (BIP)	16.5	Payment instead of discount
Binding Curtailment (OBMC)	31	Exempt from rolling blackouts
Load Reduction (SLRP)	4	\$0.10 kWh for load reduced
Blackout Reduction (RBRP)	60 (SDG&E)	\$0.20 kWh for load reduced
Demand Bidding	suspended	Customers bid on different tiers



# California Demand Response Programs



Public Utilities  
Commission

- ◆ **Interruptible**
  - Traditional interruptible service program
  - For customers with usage over 500 kW
- ◆ **AC Cycling (S. Cal. Edison Only)**
  - Customer AC will get a signal from SCE to turn off or cycle AC unit
  - Amount of time for cycling will be capped
- ◆ **Agricultural and Pumping Interruptible**
  - Signal sent from utility, as in AC Cycling program
  - Amount of interruptible time capped
- ◆ **Base Interruptible Program (BIP)**
  - Same as Interruptible, but receive a monthly capacity credit based on how much demand is turned off

# California Demand Response Programs



Public Utilities  
Commission

- ◆ **Optional Binding Mandatory Curtailment Program (OBMC)**
  - No incentives besides being exempt from rolling Stage 3 outages
  - Must cut usage in increments of 5 up to 15%
- **Scheduled Load Reduction Program (SLRP)**
  - Customers can pre-select load reductions in 4-hour blocks
- **Rolling Blackout Reduction Program (RBRP)**
  - When Stage 3 blackouts called, customers receive credits for reduction
  - San Diego only
- **Demand Bidding Program**
  - Customers can submit energy bids for various price tiers for the next day
  - CPUC considering modifications for summer 2002

# Self-Generation Incentive Program



Public Utilities  
Commission

- ◆ CPUC grants funds for customers producing electricity on-site without exporting for sale
- ◆ For production up to 1 MW
- ◆ Available for renewable and non-renewable generation, but higher grants given to renewable generation

	Number of Applications (June 01-Mar 02)	Number of kW in Applications	Dollars Reserved (millions)
Photovoltaics	83	15.8 MW	\$61.7
Wind Turbines	0	0	0
Fuel Cells	4	1.2 MW	\$2.9
Internal Combustion Engines/Microturbines	143	57.3 MW	\$38.1
Total	230	74.3 MW	\$102.7